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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/431,159	11/01/1999	YORAM BRONICKI	P-15149	8345

7590

07/25/2003

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WASHINGTON, DC 20005

EXAMINER

DOROSHENK, ALEXA A

ART UNIT

PAPER NUMBER

1764

DATE MAILED: 07/25/2003

26

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/431,159

Examiner

Alexa A. Doroshenk

Applicant(s)

BRONICKI, YORAM

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-- The MAILING DATE of this communication appears in the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Dongen et al. (4,405,441) in view of van Klinken et al. (4,039,429) and Kwant et al. (4,200,519).

Van Dongen et al. discloses an apparatus comprising:

a heater for heating heavy hydrocarbons (401) and an atmospheric fractionating tower for fractionating the heated heavy hydrocarbon feed as a first atmospheric distilling unit (407) (Since a still contains both a heat source and a fractionating tower, the atmospheric distillation unit is equivalent to the heater and the atmospheric fractionating tower of the present invention);

a further heater and vacuum fractioning tower as vacuum distilling unit (408) for atmospheric bottoms (421);

a de-asphalting unit (409) for producing DAO (403) and asphaltenes (404) from said vacuum residue (402); and

a thermal cracker (412) for cracking de-asphalting unit oil (403) with recycle connections from an outlet (425) of the thermal cracker (412) to an inlet (418) of the atmospheric fractioning tower (407) (via 425, 428, 429, 405, 415, 416, 418).

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Van Dongen et al. further discloses wherein the light vacuum fractions may be subjected to thermal cracking (col. 1, lines 25-28) and further sites the van Klinken et al. reference as demonstrating the processing of such fractions.

Looking to the cited van Klinken et al. reference, the vacuum distilling zone (3) has light fraction (21) sent to a cracking zone (10) along with oil (23) from a de-asphalting unit (4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide means, in the apparatus of Van Dongen et al., for supplying the vacuum light fractions to the thermal cracking unit (412) as it has been taught by van Klinken et al. that a single cracking unit is capable of cracking both vacuum light fractions and de-asphalting unit oil and since such further processing of vacuum light fractions by thermal cracking is recognized by Van Dongen et al. to be desirable.

The claims, as amended, recite wherein a line from said thermal cracker recycles only cracked oil to the inlet of the atmospheric fractionating tower. In view of the arguments presented by applicant and applicant's disclosure, this has been interpreted as wherein a line directly connects the cracker with the atmospheric fractionating tower for recycle of oil without any interposing distillation, fractionation or treatment units.

Van Dongen et al. discloses wherein oil is recycled from the thermal cracking unit (412) to an inlet (418) of the atmospheric fractioning tower (407) via 425, 428, 429, 405, 415, 416, 418 wherein an additional atmospheric distillation unit, a vacuum distillation unit and catalytic hydro-treating unit are interposed.

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Kwant et al. also teaches a process for the preparation of oil wherein thermally cracked product (11) is recycled directly from a thermal cracking zone (4) to the inlet (12) of a first atmospheric distillation zone (3), demonstrating that cracked oil can be directly recycled to an atmospheric distillation zone, without interposing treatments, and a system will continue to be fully operational.

It is held that it would have been obvious to one of ordinary skill in the art at the time the invention was made to eliminate the interposing units and their functions in the recycle line of Van Dongen et al. because the omission of an element and its function where not needed (as demonstrated by Kwant et al.) is obvious. Ex parte Rainu, 168 USPQ 375 (PTO Bd. of Appl. 1969).

Response to Arguments

35 USC 103 Rejections

van Klinken et al. in view of Friday et al.

In view of applicant's proper statement of evidence to disqualify the Friday et al. reference, the rejection has been withdrawn.

Van Dongen et al. in view of van Klinken et al.

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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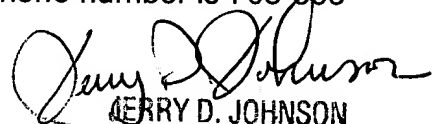
§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexa A. Doroshenk whose telephone number is 703-305-0074. The examiner can normally be reached on Monday - Thursday from 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


TERRY D. JOHNSON
PRIMARY EXAMINER
GROUP 1100

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AAD

July 22, 2003